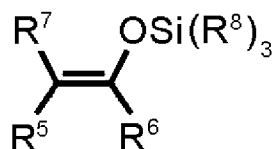


## Amendments to the Claims

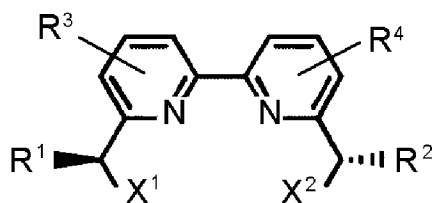
1 (currently amended). A method for producing an optically active hydroxymethylated compound, comprising reacting a silicon enolate and formaldehyde, in the presence of a catalyst, in an aqueous solution or a mixed solvent of water and an organic solvent,

wherein the silicon enolate is represented by the following formula (~~chemical formula 2~~):



wherein R<sup>5</sup> represents a hydrogen atom or an alkyl group and R<sup>6</sup> represents an alkyl group, an alkyl aryl group, or an aryl group, to R<sup>7</sup> are hydrogen atoms, aliphatic hydrocarbon groups, monocyclic or polycyclic aliphatic hydrocarbon groups, monocyclic or polycyclic aromatic hydrocarbon groups or heterocyclic groups where R<sup>6</sup> is not a hydrogen atom, R<sup>5</sup> and R<sup>7</sup> are not identical, provided that R<sup>5</sup> and R<sup>6</sup> may together with the carbon atoms to which they are bonded form a an indene, 1,2-dihydronaphthylene, cyclohexene, cycloheptene or cyclopentene ring, R<sup>7</sup> represents a hydrogen atom, an alkyl group, and alkyl aryl group, or an aryl group, and the R<sup>8</sup> groups, which may be identical or different, are hydrocarbon each alkyl groups, and

the catalyst is obtained by mixing a ligand or its symmetric isomer and a Lewis acid, wherein the ligand is represented by the following formula (~~chemical formula 1~~):



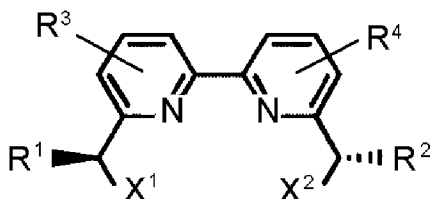
wherein each R<sup>1</sup> and R<sup>2</sup> group, which may be identical or different, are hydrogen atoms, is an alkyl group groups or an aryl groups group, provided that at least one of R<sup>1</sup> and R<sup>2</sup> contains at least three carbon atoms, the R<sup>3</sup> and R<sup>4</sup> groups, which may be identical or different, are each hydrogen atoms, alkyl groups containing one to four carbon atoms or alkoxy groups, the X<sup>1</sup> and X<sup>2</sup> groups, which may be identical or different, are each -OH or

~~-OMe represented by  $\text{OR}^9$ ,  $\text{SR}^{10}$  or  $\text{NHR}^{11}$ , wherein  $\text{R}^9$  to  $\text{R}^{11}$  are hydrogen atoms or alkyl groups, and~~

the Lewis acid is represented by  $\text{MY}_n$ , wherein M is Cu, Zn, Fe, Sc or a lanthanoid element, Y is a halogen atom, OAc,  $\text{OCOCF}_3$ ,  $\text{ClO}_4$ ,  $\text{SbF}_6$ ,  $\text{PF}_6$  or  $\text{OSO}_2\text{CF}_3$  and n is 2 or 3.

2 (canceled).

3 (withdrawn). A catalyst obtained by mixing a ligand or its symmetric isomer and a Lewis acid, wherein the ligand is represented by the following formula (chemical formula 1):



wherein  $\text{R}^1$  and  $\text{R}^2$ , may be identical or different, are hydrogen atoms, alkyl groups or aryl groups, at least one of  $\text{R}^1$  and  $\text{R}^2$  contains at least three carbon atoms,  $\text{R}^3$  and  $\text{R}^4$ , may be identical or different, are hydrogen atoms, alkyl groups containing one to four carbon atoms or alkoxy groups,  $\text{X}^1$  and  $\text{X}^2$ , may be identical or different, are represented by  $\text{-OR}^9$ ,  $\text{-SR}^{10}$  or  $\text{-NHR}^{11}$ , wherein  $\text{R}^9$  to  $\text{R}^{11}$  are hydrogen atoms or alkyl groups, and the Lewis acid is represented by  $\text{MY}_n$ , wherein M is Cu, Zn, Fe, Sc or a lanthanoid element, Y is a halogen atom, OAc,  $\text{OCOCF}_3$ ,  $\text{ClO}_4$ ,  $\text{SbF}_6$ ,  $\text{PF}_6$  or  $\text{OSO}_2\text{CF}_3$  and n is 2 or 3.